CLAIMS

1. An organic electroluminescent device comprising:

an insulating substrate;

a plurality of striped lower electrodes formed on said insulating substrate;

a plurality of fillers made of amorphous carbon filled between said lower electrodes;

at least one organic thin film layer including an emitting layer formed on said fillers and said lower electrodes; and

a plurality of striped upper electrodes formed on said organic thin film layer along a second direction different from said first direction.

2. The organic electrominescent device as set forth in claim 1, wherein said lower electrodes are anodes and said upper electrodes are cathodes.

3. The organic electroluminescent device as set forth in claim 2, further comprising a hole-transporting layer between said lower electrodes and said emitting layer.

4. The organic electroluminescent device as set forth in claim 2, further comprising an electron-transporting layer between said emitting layer and said upper electrodes.

5. The organic electroluminescent device as set forth in claim 1, wherein said insulating substrate is transparent and said lower electrodes comprise transparent conductive layers.

6. The organic electroluminescent device as set forth in claim 5, wherein said transparent conductive layers comprise indium tin oxide.

7. The organic electroluminescent device as set forth in claim 1, wherein said first direction is approximately normal to said second direction.

8. A method for manufacturing an organic electroluminescent device, comprising the steps of:

forming a conductive layer on an insulating substrate;

forming a photoresist pattern layer having a plurality of striped elements on said conductive layer;

etching said conductive layer by a dry etching process using a first plasma gas and using said photoresist pattern layer as an etching mask in a chamber to form striped lower electrodes;

depositing an insulating layer on said photoresist pattern layer and on said insulating substrate between said lower electrodes by a plasma deposition process using a second plasma gas in said chamber;

performing a lift-off operation upon said photoresist pattern layer to remove said photoresist pattern layer and a part of said insulating layer on said photoresist pattern layer;

forming at least one organic thin film layer including an emitting layer on said insulating layer and said lower electrodes; and

forming a plurality of striped upper electrodes on said organic thin film layer along a second direction different from said first direction.

9. The method as set forth in claim 8, wherein a condition for introducing said first plasma gas is the same as a condition for introducing said second plasma gas.

10. The method as set forth in claim 9, wherein each of said first and second plasma gas includes hydrocarbon gas.

11. The method as set forth in claim 8, wherein a condition for introducing said first plasma gas is different from a condition for introducing said second plasma gas.

12. The method as set forth in claim 11, wherein said first plasma gas includes halogen gas, and said second plasma gas includes hydrocarbon gas.

13. The method as set forth in claim 8, wherein said lower electrodes are anodes and said upper electrodes are

cathodes.

14. The method as set forth in claim 13, further comprising a step of forming a hole-transporting layer between said lower electrodes and said emitting layer.

15. The method as set forth in claim 13, further comprising a step of forming an electron-transporting layer between said emitting layer and said upper electrodes.

16. The method as set forth in claim 8, wherein said insulating substrate is transparent and said lower electrodes comprise transparent conductive layers.

17. The method as set forth in claim 16, wherein said transparent conductive layers comprise indium tin oxide.

18. The method as set forth in claim 8, wherein said first direction is approximately normal to said second direction.

19. The method as set forth in claim 8, wherein said insulating layer comprises amorphous carbon.

20. A method for manufacturing an organic electroluminescent device, comprising the steps of:

forming a conductive layer on an insulating substrate;

forming a photoresist pattern layer having a plurality of striped elements on said conductive layer;

etching said conductive layer by a dry etching process using gas including hydrocarbon gas and using said photoresist pattern layer as an etching mask in a chamber to form striped lower electrodes, and subsequently depositing an insulating layer on said photoresist pattern layer and on said insulating substrate between said lower electrodes by a plasma deposition process using said gas including hydrocarbon gas in said chamber;

performing a lift-off operation upon said photoresist pattern layer to remove said photoresist pattern layer and a part of said insulating layer on said photoresist pattern layer,

forming at least one organic thin film layer including an emitting layer on said insulating layer and said lower electrodes; and

forming a plurality of striped upper electrodes on said organic thin film layer along a second direction different from said first direction.

21. A method for manufacturing an organic electroluminescent device, comprising the steps of:

forming a conductive layer on an insulating substrate;

forming a photoresist pattern layer having a plurality of striped elements on said conductive layer;

etching said conductive layer by a dry etching process using a gas including halide gas and using said photoresist pattern layer as an etching mask in a chamber to form striped lower electrodes;

depositing an insulating layer on said photoresist pattern layer and on said insulating substrate between said lower electrodes by a plasma deposition process using a gas including hydrocarbon gas in said chamber;

performing a lift-off operation upon said photoresist pattern layer to remove said photoresist pattern layer and a part of said insulating layer on said photoresist pattern layer;

forming at least one organic thin film layer including an emitting layer on said insulating layer and said lower electrodes; and

forming a plurality of striped upper electrodes on said organic thin film layer along a second direction different from said first direction.